

GenCore version 4.5
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OM nucleic - nucleic search, using sw model

Run on: June 30, 2002, 23:15:44 ; Search time 2325.7 Seconds

(without alignments)
3211.325 Million cell updates/sec

Title: US-09-303-518d-651
Perfect score: 4350
Sequence: 1 atgaacaacacgacgacaaacg.....aatgagctacgcgtgttaa 4350

Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 1736436 segs, 858457221 residues

Total number of hits satisfying chosen parameters: 3472872

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 100 summaries

Database: N_Geneseq/032802.*
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23: /SIDSL/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT.*
24: /SIDSL/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	4288	98.6	4350	20	AAZ12252
2	3555.8	81.7	4365	21	AAZ12252
3	3508	80.6	4374	20	AAZ12251
4	3508	80.6	4374	21	AAZ12251
5	3508	80.6	4374	21	AAZ12251
6	3508	80.6	4374	21	AAZ12251
7	3508	80.6	4374	21	AAZ12251
8	3508	80.6	4374	21	AAZ12251
9	3498.4	80.4	4374	21	AAZ12251

10	3385.8	77.8	4407	20	AAZ12253	Neisseria gonorrhoea
11	1348	31.0	4319	17	AAZ17215	Adhesion and penet
12	1048.2	24.1	2991	20	AAZ12250	Neisseria meningit
13	790.8	18.2	891	21	AAZ12250	Neisseria meningit
14	739.4	17.0	781	21	AAZ1402	N. meningitidis Me
15	690.8	15.9	781	21	AAZ1402	N. meningitidis Me
16	206	4.7	1312	21	AAZ1400	H. influenzae Hap
17	191.4	4.4	30078	21	AAZ1520	Neisseria meningit
18	191.4	4.4	349980	21	AAZ1520	Neisseria meningit
19	177.4	4.1	4296	21	AAZ54326	Neisseria meningit
20	177.4	4.1	16526	21	AAZ54326	Neisseria meningit
21	177.4	4.1	172325	21	AAZ61472	Neisseria meningit
22	177.4	4.1	172325	21	AAZ61472	Neisseria meningit
23	158	3.6	5091	11	AAZ06164	The iqa gene, enco
24	138.2	3.2	4113	22	ABA89142	Escherichia coli P
25	138.2	3.2	48254	22	ABA89142	Escherichia coli P
26	138.2	3.2	48345	22	ABA89142	Escherichia coli P
27	122	2.8	4128	22	ABA89142	Escherichia coli P
28	122	2.8	7654	22	ABA89142	Escherichia coli P
29	108.2	2.5	642	21	AAZ10594	N. meningitidis pa
30	52.2	1.2	10732	21	AAZ10594	N. meningitidis pa
31	47.6	1.1	3489	21	AAZ10594	N. meningitidis pa
32	47.6	1.1	3489	22	AAZ10594	N. meningitidis pa
33	47.6	1.1	32207	20	AAZ10594	N. meningitidis pa
34	47.6	1.1	137507	19	AAZ10594	N. meningitidis pa
35	43.8	1.0	440365	22	AAZ10594	N. meningitidis pa
36	43.8	1.0	4411529	22	AAZ10594	N. meningitidis pa
37	43.8	1.0	2068	22	AAZ10594	N. meningitidis pa
38	43	1.0	35133	21	AAZ1611	Neisseria meningit
39	43	1.0	349980	21	AAZ1611	Neisseria meningit
40	43	1.0	837096	21	AAZ1611	Neisseria meningit
41	42.6	1.0	1089	21	AAZ1611	Neisseria meningit
42	42.2	1.0	400	19	AAZ1611	Neisseria meningit
43	42.2	1.0	400	19	AAZ1611	Neisseria meningit
44	42.2	1.0	400	19	AAZ1611	Neisseria meningit
45	42.2	1.0	400	19	AAZ1611	Neisseria meningit
46	41.6	1.0	400	20	AAZ1611	Neisseria meningit
47	41.4	1.0	6741	21	AAZ1611	Neisseria meningit
48	41.4	1.0	4403765	22	AAZ1611	Neisseria meningit
49	41	0.9	272	21	AAZ1611	Neisseria meningit
50	41	0.9	4460	9	AAZ1611	Neisseria meningit
51	40.6	0.9	4411529	22	AAZ1611	Neisseria meningit
52	40.6	0.9	4461	23	AAZ1611	Neisseria meningit
53	40.2	0.9	26879	23	AAZ1611	Neisseria meningit
54	40.2	0.9	1461	23	AAZ1611	Neisseria meningit
55	40.2	0.9	4010	23	AAZ1611	Neisseria meningit
56	40	0.9	3741	21	AAZ1611	Neisseria meningit
57	39.8	0.9	58857	21	AAZ1611	Neisseria meningit
58	39.8	0.9	1068	21	AAZ1611	Neisseria meningit
59	39.8	0.9	1098	24	AAZ1611	Neisseria meningit
60	39.8	0.9	2716	23	AAZ1611	Neisseria meningit
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62	39.6	0.9	567	21	AAZ1611	Neisseria meningit
63	39.6	0.9	2885	23	AAZ1611	Neisseria meningit
64	39.6	0.9	3848	23	AAZ1611	Neisseria meningit
65	39.6	0.9	5004	23	AAZ1611	Neisseria meningit
66	39.4	0.9	2800	22	AAZ1611	Neisseria meningit
67	39.4	0.9	2803	22	AAZ1611	Neisseria meningit
68	39.4	0.9	2803	22	AAZ1611	Neisseria meningit
69	39.2	0.9	1439	19	AAZ1611	Neisseria meningit
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71	39.2	0.9	1439	20	AAZ1611	Neisseria meningit
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81	39	0.9	1072	23	AAZ1611	Neisseria meningit
82	39	0.9	1925	22	AAZ1611	Neisseria meningit
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Dh 1915 aaactgttttcaagcgagacgcgacgcgcaacgtctcaatcatattggaagcggtgtg 1974
Qy 1954 tcaaaatggaagtgatcccaacgaaggaatcgtgtggaacacgactgatacmagc 2013
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AAAB1302
 ID AAAB1302 standard; DNA; 4374 BP.
 XX
 AC AAAB1302:
 XX
 DT 04-DEC-2000 (first entry)
 DE
 N. meningitidis partial DNA sequence orf1-1.seq SEQ ID NO:1046.
 XX
 KW Neisseria meningitidis; Neisseria gonorrhoeae; genome; immunogenic;
 KW antigen; vaccine; diagnosis; infection; antibacterial; identification;
 KW Meningococcus B; MenB; ds.
 XX
 OS Neisseria meningitidis.
 XX
 PN WO20002430-A2.
 PD 20-APR-2000.
 XX
 PF 08-OCT-1999; 99WO-US23573.
 XX
 PR 09-OCT-1998; 98US-0103794.
 PR 30-APR-1999; 99US-0132068.
 XX
 RA (CHIR) CHIRON CORP.
 PI Frazer CM, Hickey E, Peterson J, Tettelin H, Venter JC;
 PI Maignani V, Galeotti C, Mora M, Ratti G, Scarselli M, Scarlato V;
 PI Rappunli R, Pizzo M;
 XX
 DR WPI: 2000-318079/27.
 DR P-PSDB: AAB25662.
 XX
 PT Isolated nucleotide sequences of Neisseria meningitidis which can be
 PT used in the diagnosis and treatment of N. meningitidis infection and
 PT other Neisserial infections, for example, N.gonorrhoea -
 XX
 PS Example 1: Page 112-113; 1760pp; English.
 XX
 CC The present invention describes methods of obtaining immunogenic
 CC proteins from Neisseria genomic sequences. AAAB1453 to AAAB2414
 CC represent specifically claimed Neisseria meningitidis genomic DNA
 CC sequences; AAAB1260 to AAAB1303 and AAB25620 to AAB25663 represent
 CC Neisseria DNA sequences and their corresponding proteins; AAAB1254 to
 CC AAAB1259 and AAAB1304 to AAAB1321 represent PCR primers used in the
 CC isolation of Neisseria meningitidis DNA sequences; and AAAB1322 to
 CC AAAB1452 represent Neisseria meningitidis MenB polynucleotide ORF
 CC sequences, which are all used in the exemplification of the present
 CC invention. The nucleic acid sequences, protein sequences, and antibodies
 CC against them, can be used in the manufacture of a composition. The
 CC composition can be used as a medicament (or in the manufacture of a
 CC medicament) for treating, preventing or diagnosing infection due to
 CC Neisserial bacteria. For example, some of the identified proteins could
 CC be components of vaccines against Meningococcus B; against all serotypes
 CC and/or against all pathogenic Neisseriae. Identification of sequences
 CC from the bacterium will also facilitate production of biological probes,
 CC particularly organism-specific probes. Attempts to make efficacious
 CC Meningococcus B vaccines have failed mainly due to antigen tolerance.
 CC Multivalent vaccines have also been tried but none have successfully
 CC overcome antigenic variability. The provision of further, complete
 CC sequences may provide an opportunity to identify secreted or surface
 CC exposed proteins that may be presumed targets for the immune system and
 CC which are not antigenically variable or at least more conserved than
 CC other more variable regions.
 XX
 Sequence 4374 BP: 1266 A; 1163 C; 1066 G; 879 T; 0 other;

	Query Match	80.6%;	Score 3508;	DB 21;	Length 4374;
	Best Local Similarity	88.4%;	Pred. No. 0;		
	Matches 3876; Conservative	0;	Mismatches 462;	Indels 48;	Gaps 8,
QY	1 atgaataacaccgcgacaacgcgacaacccgcaaaagccccgaanaaccggcgcg	60			

[illegible]

QY 2134 ccgcatcaaaagccataacatctgtacacgttcgagctgagcagngtctgacaaattgtgtc 2193
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QY 2194 gaanaanaacattaccgacgataaagtattgtcttattgataagcagngatnagcggc 2253
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QY	1057	cgactgtttgacgaatctcttgaacatgataagaacagctt---acgcggcaggg	1113
Db	288111	CAATTGTTTAAATGTTTCTTTTATCGAGACACGACAGAACTGTTTATCATGTCGACAGT	288052
QY	1114	gggttcaatcgaatccgyltccaaagltlaacaaacggltgaanaaccttcttatacgattac	1173
Db	288051	GGCTCAACACACTTATTCGACCCGACACTGAAATATGAGAAATAATTTCTTTATTGACGAA	287992
QY	1174	ggcaacggcaaacatcatcttcaaaacaataccaacgaacggcgcggttatttt	1233
Db	287991	GGAAAAAGCGAATTCATCTTACCAAGCAACATCAATCAAGGTGCTGAGAGATTTATTTTC	287932
QY	1234	gaaggtgatttatacgytctgccttgaanaacaaacgaacgltgcaacggcgcggttcac	1293
Db	287931	CAAGGAGATTTTACCGTCTCCCTGAAAAATTAACGMAACTTGCAAGAGCGCGGGCTTCAT	287872
QY	1294	atcagttgaagcagacacgcttaactttggaagtlaaacggcgttggcaaacgacgcctgtcc	1353
Db	287871	ATCATGTGAAGACAGTACCGTTACTTGTGAAAGTAAACGGCGTGGCAAAAGCACCGCTGTCC	287812
QY	1354	aaaacgcgcaaaagcagcgttcaacgltlaaagccaaggggaaacaaacgaagcgttcacacg	1413
Db	287811	AAAAACGGCAAAAGCAACGCTGCACGCTTCAGGCCAAGGGAAGGAAAAACCAAGCGCTCATCAGC	287752
QY	1414	gtggcgacgcgttacagatattttagatacagacagcagatgaaggaanaaaacaaacgc	1473
Db	287751	GTGGCGACGCGTACAGTATTTTGGATGACAGCGCAAGCATTAAGGCAAAAAAACAACCC	287692
QY	1474	tttagtgaatcgcgttntcagcgcgcaggggtacgltgcacatgaaacgcgataatcag	1533
Db	287691	TTTACTGAAATCGGTTGGTTCAGCGGACGGGTACGTTGCAACCTGAATGCCATTAATCAG	287632
QY	1534	ttcaaccccgcaaacactatttgcgcttgcggcggaacgttttgattttaaocggcat	1593
Db	287631	TTCAACCCCCGCAAAACTCTATTTTCGGCTTTCGGCGGACGCTTTCGATTTAAACGGCAT	287572
QY	1594	tgcgttctgtccacacgttatcaaaatccgaatgaagggcgatgattgtnatataat	1653
Db	287571	TGCGTTTCGTTCCACCGTATTCAAAATACGATGAAGGGGGATATTGTCAACCAACAT	287512
QY	1654	gccacaacaacatccacgcgttaccatltacagggaaatgaagtattacacacacgcgattgt	1713
Db	287511	CAAGACAAAGATTCACCGCTTACCATTAACGCAATAAGATATTTGCTACCAACCGG---	287454
QY	1714	aagaatatcaatagaacttaataacagcaagaagaattgcttacaacggttattggcag	1773
Db	287455	---CAATTAACAAACAGCTTGATAGCAAAAAGAAATTTGCTTACACCGTTTGTTGGCCAG	287398
QY	1774	aaaagatacgaacaaacgaacgcggcggttcaacctgttttaccagccgcgcgcagaagac	1833
Db	287397	AAAGATACGACCAAAACGAACGGCGGCTCAACCTTGTATACAGCCGCCGCAANAAGAC	287338
QY	1834	cgacacccngctcttccgcggcggaacaaatttaaocgnaacatatacgaanaaaacggcg	1893
Db	287337	CGACCCCTCTCTCTTCGCGGGAACAAATTTAAACGGCAACATCCGAAACAAACGGCG	287278
QY	1894	aaactgttttcaagcgcgcagcgcacgcgcgccttacaatcatttgaagacgggtgtg	1953
Db	287277	AAACTGTTTTCAGCGGGAGACCAACACGCAACGCTTACATATTAAACGACCATTTG	287218
QY	1954	tcaaaaaatgaagatlatcccaacaggagaatcogtltgtggacaacgacttgcattmccgc	2013
Db	287217	TGCGCAAAAAAGAGGCACTTCCTCGCGGGGAATCGTGTGGACAAACACACGTGATCAACCCG	287158
QY	2014	acgtttaaagcggaanaattccaattatcattcgcgcggcgagcggttattcccgcaattgt	2073
Db	287157	ACATTTTAAAGCGGAAAACTTCCAAATTTAAAGCGGACAGCGGTGTTTCCCGCAATGTT	287098
QY	2074	gccaaagtgaagcgagattgncatttgaacaaatcaccgcccacgaagcaglttttgtgtcga	2133

Db 286017 AAGAAACAAGACTTTCCGACAAACTCGGCAAGGAGAGAACCCAAAAACAGCGGAAAAA 285958
Qy 3205 gacaaacgcaaaagccttaccgagctgattgagccggcgagatgcgcgcaaaagaca 3264
Db 285957 GACAAAGCGCAAAAGCCTTACCGCGCTGATTGGGGCCGGGCGGATGCCCTGCANAAAGACA 285998
Qy 3265 gaaagcgttgcgaacacggcgccgngcgaagcgagggaaaatgctgcataatgcagcg 3324
Db 285897 GAAAGGTTGGCGAAGCCGGCCCGGACAGGCGGAGGAAATGTCGCATTATGACAGCG 285838
Qy 3325 gaggaagagaaaaacgggttgagcgagataaagacagcgcttggcgaaacagcgcaa 3384
Db 285837 GAGGAAAGAGAAAAAGGGGTGAGCGGATTAAGACACCGCTTGGCAAAACAGCGCA 285778
Qy 3385 gcgaaacacggcgagntaccacgccttcccgcccgccgngcgccgagcgagattg 3444
Db 285777 GCGGAAACCCGGCGCGCTTACCGCGCTTCCCGCGCGCGCGCGCGCGCGGATTTG 285718
Qy 3445 ccgcaacgcaagcccaacacgaacccaaccccaacgcaagcgagctgataagcgt 3504
Db 285717 CCGCAACTGCAACCCCAACCG-----CAGCCCCAACCGCAGCGGACCTGATCAGCGCT 285664
Qy 3505 tatgcaatagcggtttagtgaatttcccgcaagctcacaagcgcttgcgcgtacag 3564
Db 285663 TATGCCAATAGCGGTTGAGTGAATTTTCCGCGACGCTCAACAGCGTTTCCGCTACAG 285604
Qy 3565 gacgaattgacacgagcttgcgcgaagacgcaagcgcaagcgnttggacaagcgatc 3624
Db 285603 GACGAATTAGACCGCGTATTGTCGCAACACCGCGCAACGCGCTTTGACAAAGGCGATC 285544
Qy 3625 cgnaacacaaacactacacgcttcgaagaattccgcgcctacgcgaacaaacagacgt 3684
Db 285543 CCGGACACCAAAACACTACCGTTCGCAAGATTCCGCGCTACCGCAACAAACGACCTG 285484
Qy 3685 cggcaatcgtatgcgaaaaaaactgcgcgagcgagcgcgctgcgcgtcttgcgac 3744
Db 285483 CGCCAAATCGGTATGCANAAACCTCGGACGCGCGCGCTGCGCATCTCTTTTCCAC 285424
Qy 3745 aacggacgcaaaacanttcgacgacgcaatcgcaactgcgcgagcgcttgcacagcg 3804
Db 285423 AACGCGACCGAAACACTTTCGACGAGCGCATCGCAACTGCGACGCGCTTGCACAGCGC 285364
Qy 3805 gccgtttcgagcaatacgcgacatgcgcaggttcgacatcgacacgacgagcgaggt 3864
Db 285363 GCCGTTTTCGGGCAATACGCGATGACAGGTTTACATCGGCATCAGCGCGCGGAGGT 285304
Qy 3865 tttagcagcgagcattcttcagacgagatcgaggaagaaaatcgcccgccgctgcacat 3924
Db 285303 TTTAGCAAGCGGACCTTTCAGACGGCATCGAGGCAAAATCCGCGCGCTGCTCAT 285244
Qy 3925 taagcattcagacgacatacgcgcggttcgcgcgagatcgacatcgacacgacatc 3984
Db 285243 TACGGCATTCAGGACGATACCGCGCGGTTTCGGCGGATTTCGCAATCGAACCACATC 285184
Qy 3985 gggcgaacgagctattcttcacaaaagcgagattacgcgctacgaaaacgctacatgc 4044
Db 285183 GGGCAAGCGCTATTTCTGCAAAAAGCGATTAACGCTACGCAAAACGCTCAATATGCC 285124
Qy 4045 aaccgcgctctgcgttcaaacgntlacgncggcgagatcgaaagagatttcaatcaaa 4104
Db 285123 ACCCGCGGCTTGCATTCAACCGCTTACCGCGGCGGCTTAAGGCAATTTTCTCTTAAA 285064
Qy 4105 ccgagcgcaacacatntccatcaacnccattatnaagcctgctcctatacgaatgcgcgtc 4164
Db 285063 CCGGCGAACAACATTTTCATCACCGCTTATTTGAGCTGTCTATACCATGCGCGCTTCG 285004
Qy 4165 ggcgaatccgaacagcgctcaatcagcgngtattgcttagagatttcgcaaaacggc 4224
Db 285003 GGCAAAATCCGAACACCGCTCAATACCGCGTATTTGCTAGGATTTTCGCAAAACCGCG 284944
Qy 4225 agtgcgaatgagcgctgaacacgcgaatcaaaagttcagcgtctcgcgcgtgc 4284
Db 284943 AGTGCGAATGCGGCTAAACCGCGAATCAAAAGTTTCAACGCTGCTCCACGCTGCC 284884

Qy 4285 gccgcgaagggccgcaacttgaagcgcaacacgagcgggcgatcaaataggctacgc 4344
Db 284883 GCCGCAAAAGGCGCGCAATGGAAGCGCAACACAGCGCGGCGCATCAATTAAGCTACCGC 284824
Qy 4345 tggtaa 4350
Db 284823 TGTGTA 284818
RESULT 8
AAA81489/c
ID AAA81489 standard; DNA: 837096 BP.
XX
AC AAA81489;
XX
XX
DT 04-DEC-2000 (first entry)
XX
DE N. meningitidis partial DNA sequence gnm_37 SEQ ID NO:37.
XX
KW Neisseria meningitidis; Neisseria gonorrhoeae; genome; immunogenic;
KM antigen; vaccine; diagnosis; infection; antibacterial; identification;
KM Meningococcus B; MenB; ds.
XX
OS Neisseria meningitidis.
XX
PN W0200022430-A2.
XX
PD 20-APR-2000.
XX
XX 08-OCT-1999; 99MO-US23573.
PF
XX
PR 09-OCT-1998; 98US-0103794.
PR 30-APR-1999; 99US-0132068.
XX
XX (CHIR) CHIRON CORP.
PI Frazier CM, Hickey E, Peterson J, Tettelin H, Venter JC;
PI Masignan V, Galzotti C, Mora R, Ratti G, Scarselli M, Scarlato V;
PI Rappaport R, Pizzia M;
XX
XX
DR WPI; 2000-318079/27.
XX
PT Isolated nucleotide sequences of Neisseria meningitidis which can be
PT used in the diagnosis and treatment of N. meningitidis infection and
PT other Neisserial infections, for example, N.gonorrhoea .
XX
PS Claim 7: Page 629-865; 1760pp; English.
XX
CC The present invention describes methods of obtaining immunogenic
CC proteins from Neisseria genomic sequences. AAA81453 to AAA82414
CC represent specifically claimed Neisseria meningitidis genomic DNA
CC sequences; AAA81260 to AAA81303 and AAB25620 to AAB25663 represent
CC Neisseria DNA sequences and their corresponding proteins; AAA81254 to
CC AAA81259 and AAA81304 to AAA81321 represent PCR primers used in the
CC isolation of Neisseria meningitidis DNA sequences; and AAA81322 to
CC AAA81452 represent Neisseria meningitidis MenB polynucleotide ORF
CC sequences, which are all used in the exemplification of the present
CC invention. The nucleic acid sequences, protein sequences, and antibodies
CC against them, can be used in the manufacture of a composition. The
CC composition can be used as a medicament (or in the manufacture of a
CC medicament) for treating, preventing or diagnosing infection due to
CC Neisserial bacteria. For example, some of the identified proteins could
CC be components of vaccines against Meningococcus B; against all serotypes;
CC and/or against all pathogenic Neisseriae. Identification of sequences
CC from the bacterium will also facilitate production of biological probes,
CC particularly organism-specific probes. Attempts to make efficacious
CC Meningococcus B vaccines have failed mainly due to antigen tolerance.
CC Multivalent vaccines have also been tried but none have successfully
CC overcome antigenic variability. The provision of further, complete
CC sequences may provide an opportunity to identify secreted or surface
CC exposed proteins that may be presumed targets for the immune system and
CC which are not antigenically variable or at least more conserved than

QY 3085 ggccgctggttaccactatccgcaaaagcggagttccgctctgcaataccgctc 3144
 |||||
 Db 3115 ggcgctggcgttaccactatccgcaaaagcggagttccgctctgcaataccgctc 3174
 |||||
 QY 3145 aaaaacaagaagcttccgcaaaactcgcaagcgcaaaacccaacacgagcgagaa 3204
 |||||
 Db 3175 aaaaacaagaagcttccgcaaaactcgcaagcgcaaaacccaacacgagcgagaa 3234
 |||||
 QY 3205 gacaacgcaaaagccttgacgctgatttgccgagcgagcgatctgcgcgcaaaagaca 3264
 |||||
 Db 3235 gacaacgcaaaagccttgacgctgatttgccgagcgagcgatctgcgcgcaaaagaca 3294
 |||||
 QY 3265 gaaagcgttgcgcaacgcccgcgagcgagcgagcgagcgagcgatctgcgcgcaagcg 3324
 |||||
 Db 3295 gaaagcgttgcgcaacgcccgcgagcgagcgagcgagcgagcgatctgcgcgcaagcg 3354
 |||||
 QY 3325 gaggaaagaaaaacggtgcaagcgataaagacagcgatctgcgcgcaacacgagcgaa 3384
 |||||
 Db 3355 gaggaaagaaaaacggtgcaagcgataaagacagcgatctgcgcgcaacacgagcgaa 3414
 |||||
 QY 3385 ggcgaacccgagccgagntaccacgcttcccgccgagcgagcgagcgagcgatctg 3444
 |||||
 Db 3415 ggcgaacccgagccgagntaccacgcttcccgccgagcgagcgagcgagcgatctg 3474
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 QY 3445 ccgcaacgagcccccaacgcaactcaaccacgagcgagcgagcgatctg 3504
 |||||
 Db 3475 ccgcaacgagcccccaacgcaactcaaccacgagcgagcgagcgatctg 3528
 |||||
 QY 3505 tatgcgaataagcgtttgagtgaaatttcgcgcacgctcaacacgagcgatctg 3564
 |||||
 Db 3529 tatgcgaataagcgtttgagtgaaatttcgcgcacgctcaacacgagcgatctg 3588
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 QY 3565 gacgaattgagccgctggttgcgcaagacgagcgagcgagcgagcgatctg 3624
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 Db 3589 gacgaattgagccgctggttgcgcaagacgagcgagcgagcgagcgatctg 3648
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 QY 3625 cggaaacacaaactacgcttcgcaagatcttcgcgcctcaacgcaacacgagcgatctg 3684
 |||||
 Db 3649 cggaaacacaaactacgcttcgcaagatcttcgcgcctcaacgcaacacgagcgatctg 3708
 |||||
 QY 3685 cgcgaacatcgatgacgaaacacgagcgagcgagcgagcgatctg 3744
 |||||
 Db 3709 cgcgaacatcgatgacgaaacacgagcgagcgagcgagcgatctg 3768
 |||||
 QY 3745 aaccgagccgaacaaancttcgacgagcgatctgcgcaactcgacgagcgatctg 3804
 |||||
 Db 3769 aaccgagccgaacaaancttcgacgagcgatctgcgcaactcgacgagcgatctg 3828
 |||||
 QY 3805 gccgttttcgagcaatacgagcgatctgcgcaactcgacgagcgagcgatctg 3864
 |||||
 Db 3829 gccgttttcgagcaatacgagcgatctgcgcaactcgacgagcgagcgatctg 3888
 |||||
 QY 3865 tttagcagcgagcgttcgcaagcgatctgcgcaactcgacgagcgatctg 3924
 |||||
 Db 3889 tttagcagcgagcgttcgcaagcgatctgcgcaactcgacgagcgatctg 3948
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 QY 3925 tacgcatctcagcgagcgttcgcaagcgatctgcgcaactcgacgagcgatctg 3984
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 Db 3949 tacgcatctcagcgagcgttcgcaagcgatctgcgcaactcgacgagcgatctg 4008
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 QY 3985 ggcgaacgagcgttcgcaagcgatctgcgcaactcgacgagcgatctg 4044
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 Db 4009 ggcgaacgagcgttcgcaagcgatctgcgcaactcgacgagcgatctg 4068
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 QY 4045 acccccggttctggttaacgagcgagcgagcgagcgagcgatctg 4104
 |||||
 Db 4069 acccccggttctggttaacgagcgagcgagcgagcgagcgatctg 4128
 |||||
 QY 4105 ccggcgaacacatctcacaacgagcgagcgagcgagcgagcgatctg 4164
 |||||
 Db 4129 ccggcgaacacatctcacaacgagcgagcgagcgagcgagcgatctg 4188
 |||||

QY 4165 ggcgaagtcgacacgagcgttcacataccgagntatggttcagagatttcgcaaaacccgc 4224
 |||||
 Db 4189 ggcgaagtcgacacgagcgttcacataccgagntatggttcagagatttcgcaaaacccgc 4248
 |||||
 QY 4225 agtcggaatgggagcgttaacgagcgcaatacgaagtttcagcgttccttcacagctg 4284
 |||||
 Db 4249 agtcggaatgggagcgttaacgagcgcaatacgaagtttcagcgttccttcacagctg 4308
 |||||
 QY 4285 ggcgcgaaggggagcgttcgaagcgacacacgagcgagcgatctg 4344
 |||||
 Db 4309 ggcgcgaaggggagcgttcgaagcgacacacgagcgagcgagcgatctg 4368
 |||||
 QY 4345 tggtaa 4350
 |||||
 Db 4369 tggtaa 4374

RESULT 10

AAZ12253 standard; DNA: 4407 BP.

AAZ12253;

08-OCT-1999 (first entry)

Neisseria gonorrhoeae complete ORF1 sequence.

Neisseria meningitidis; Neisseria gonorrhoeae; antigen; vaccine; treatment; Neisseria infection; meningitis; septicemia; gonorrhea; ss.

Neisseria gonorrhoeae.

W09924578-A2.

20-MAY-1999.

09-OCT-1998; 98WO-1B01665.

01-SEP-1998; 98GB-0019016.

06-NOV-1997; 97GB-0023516.

14-NOV-1997; 97GB-0024190.

18-NOV-1997; 97GB-0024386.

27-NOV-1997; 97GB-0025158.

10-DEC-1997; 97GB-0026147.

14-JAN-1998; 98GB-0000759.

(CHIR-) CHIRON SPA.

Grandi G, Masignani V, Pizze M, Rappuoli R, Scarlato V;

WPI: 1999-327407/27.

P-PSDB: AAY38825.

Claim 9; Page 370-371; 524pp; English.

Nucleotide sequences AAZ11972-212358 represent open reading frames
 (ORFs) of *Neisseria meningitidis* and *N. gonorrhoeae* which encode
 antigenic proteins (see AAY38499-Y38944). The antigenic proteins, their
 fragments, their nucleic acids and antibodies are used for diagnosis,
 prevention (as vaccines) or treatment of *Neisseria* infections,
 such as meningitis, septicemia and gonorrhea. Both organisms
 are closely related. Fragments of the nucleic acids are useful
 as hybridisation probes and antisense reagents.

Sequence 4407 BP; 1273 A; 1169 C; 1094 G; 871 T; 0 other;

Query Match 77.8%; Score 3395.8; DB 20; Length 4407;
 Best Local Similarity 86.3%; Pred. No. 0;
 Matches 3814; Conservative 0; Mismatches 524; Indels 81; Gaps 7;

Db 2155 ||||| cccgataaagccacaaactctgtaacgcttcggaacggaagcgttcggaagctgtaccc 2214
QY 2194 gaanaaancattacccagcagataaagtgatgtcttcatttgataagcagmtnaagccg 2253
Db 2215 gaanaaancattacccagcagataaagtgatgtcttcatttgataagcagmtnaagccg 2274
QY 2254 antgtanagmtnacmtnaagcagmtnaagcagmtnaagcagmtnaagcagmtnaagcag 2313
Db 2275 aatgtcagccttcggaacgcttcggaacgcttcggaacgcttcggaacgcttcggaacg 2334
QY 2314 aatgtcagccttcggaacgcttcggaacgcttcggaacgcttcggaacgcttcggaacg 2373
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QY 2434 ncatcagmtnacmtnaagcagmtnaagcagmtnaagcagmtnaagcagmtnaagcagmtna 2493
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Db 2635 ggcgcaagcagataagcagataagcagataagcagataagcagataagcagataagcagata 2694
QY 2674 gaattagcagataagcagataagcagataagcagataagcagataagcagataagcagata 2733
Db 2695 gaattagcagataagcagataagcagataagcagataagcagataagcagataagcagata 2754
QY 2734 gatcgtcagcagataagcagataagcagataagcagataagcagataagcagataagcagata 2793
Db 2755 gatcgtcagcagataagcagataagcagataagcagataagcagataagcagataagcagata 2814
QY 2794 tccctatattacgataagcagataagcagataagcagataagcagataagcagataagcagata 2853
Db 2815 tccctatattacgataagcagataagcagataagcagataagcagataagcagataagcagata 2874
QY 2854 aacgcaaatctgaacgataagcagataagcagataagcagataagcagataagcagataagc 2913
Db 2875 aacgcaaatctgaacgataagcagataagcagataagcagataagcagataagcagataagc 2934
QY 2914 agcgcaaatctgaacgataagcagataagcagataagcagataagcagataagcagataagc 2973
Db 2935 agcgcaaatctgaacgataagcagataagcagataagcagataagcagataagcagataagc 2994
QY 2974 accgcaaatctgaacgataagcagataagcagataagcagataagcagataagcagataagc 3033
Db 2995 accgcaaatctgaacgataagcagataagcagataagcagataagcagataagcagataagc 3054
QY 3034 ccgctgtcgaacgataagcagataagcagataagcagataagcagataagcagataagcagata 3093
Db 3055 ccgctgtcgaacgataagcagataagcagataagcagataagcagataagcagataagcagata 3114
QY 3094 cgttcgaacgataagcagataagcagataagcagataagcagataagcagataagcagataagc 3153
Db 3115 cgttcgaacgataagcagataagcagataagcagataagcagataagcagataagcagataagc 3174
QY 3154 gagcttcgaacgataagcagataagcagataagcagataagcagataagcagataagcagata 3183
Db 3175 gagcttcgaacgataagcagataagcagataagcagataagcagataagcagataagcagata 3244
QY 3184 -----gctcaaaaacgagcagataagcagataagcagataagcagataagcagataagc 3251
Db 3235 gacacacttcgagccacaaacagataagcagataagcagataagcagataagcagataagc 3294
QY 3232 attcgccgagccgagataagcagataagcagataagcagataagcagataagcagataagc 3291
Db 3295 attcgccgagccgagataagcagataagcagataagcagataagcagataagcagataagc 3354
QY 3292 gacagccgagccgagataagcagataagcagataagcagataagcagataagcagataagc 3351
Db 3355 gacagccgagccgagataagcagataagcagataagcagataagcagataagcagataagc 3414
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Db 3415 gataaagcagccgataagcagataagcagataagcagataagcagataagcagataagc 3474
QY 3412 tcccccgcgagccgagataagcagataagcagataagcagataagcagataagcagata 3471
Db 3475 tcccccgcgagccgagataagcagataagcagataagcagataagcagataagcagata 3528
QY 3472 caaccacacgagccgagataagcagataagcagataagcagataagcagataagcagata 3531
Db 3529 caaccacacgagccgagataagcagataagcagataagcagataagcagataagcagata 3588
QY 3532 tccgcacagccagataagcagataagcagataagcagataagcagataagcagataagc 3591
Db 3589 tccgcacagccagataagcagataagcagataagcagataagcagataagcagataagc 3648
QY 3592 gacccgcaagccgagataagcagataagcagataagcagataagcagataagcagata 3651
Db 3649 gacccgcaagccgagataagcagataagcagataagcagataagcagataagcagata 3708
QY 3652 gatttcgagccagataagcagataagcagataagcagataagcagataagcagataagc 3711
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QY 3712 ggcagcagccgagataagcagataagcagataagcagataagcagataagcagataagc 3771
Db 3769 ggcagcagccgagataagcagataagcagataagcagataagcagataagcagataagc 3828
QY 3772 ggcagcagccgagataagcagataagcagataagcagataagcagataagcagataagc 3831
Db 3829 ggcagcagccgagataagcagataagcagataagcagataagcagataagcagataagc 3888
QY 3832 aggttcgagccagataagcagataagcagataagcagataagcagataagcagataagc 3891
Db 3889 aggttcgagccagataagcagataagcagataagcagataagcagataagcagataagc 3948
QY 3892 atcagagccagataagcagataagcagataagcagataagcagataagcagataagc 3951
Db 3949 atcagagccagataagcagataagcagataagcagataagcagataagcagataagc 4008
QY 3952 ggttcgagccagataagcagataagcagataagcagataagcagataagcagataagc 4011
Db 4009 ggttcgagccagataagcagataagcagataagcagataagcagataagcagataagc 4068
QY 4012 ggcgattacgataagcagataagcagataagcagataagcagataagcagataagc 4071
Db 4069 ggcgattacgataagcagataagcagataagcagataagcagataagcagataagc 4128
QY 4072 cgcgagccagataagcagataagcagataagcagataagcagataagcagataagc 4131
Db 4129 cgcgagccagataagcagataagcagataagcagataagcagataagcagataagc 4188
QY 4132 tattttagcctgtctataagcagataagcagataagcagataagcagataagcagataagc 4191
Db 4189 tattttagcctgtctataagcagataagcagataagcagataagcagataagcagataagc 4248
QY 4192 gcmgttagcctgtctataagcagataagcagataagcagataagcagataagcagataagc 4251
Db 4249 gcmgttagcctgtctataagcagataagcagataagcagataagcagataagcagataagc 4308
QY 4252 atcaaggtttacgctgtctataagcagataagcagataagcagataagcagataagc 4311
Db 4309 atcaaggtttacgctgtctataagcagataagcagataagcagataagcagataagc 4368

QY	853	cctatccgcgcagcgaaacgcgtttccacgtgatacgcgaagaatggttttaacgtgac	912
Db	861	cccttttaagcgcaaaaagaaaatggtttccaatgtgttcgcgaatctcattt---tgatgaa	917
QY	913	attacagagcgcatatacataccgtctnttttgaaccgcgcagtaacgcgacattttcc	972
Db	918	atttcgaaagagstttacatacatcacttaacaccgcgagcttggttaatgtagtgacaca	977
QY	973	tttcatccacaacaaacggtlaacggtlaacgaaaccaaacgaagaagtttccaat	1032
Db	978	atlagtgaatatgataatggtcaggggtctataactcagaatcaggaatafacatcaagaa	1037
QY	1033	ccaaagcttaaaagacagacagctccgcagctgtttgacgaactcttgaatgnaactgttaa	1092
Db	1038	attaaaaattacgttagcnaaatatgagttt-----accttugaagaagaagaa	1088
QY	1093	gaaccaggttaacgcgcagaggggtgttaacgtacccgtccaaggttaacaaacggtuga	1152
Db	1089	gtctaatccttagatataatgacgcgcctaattattcttcacgctttaacaaatgagaa	1148
QY	1153	aaccttctttatcgattacgcgcacgcgcaaacatcttatccaaacaatcaaccaa	1212
Db	1149	acgctaattttatgtgatacaaaaacaaaggaatcattacttcgcactgtgacattaa	1208
QY	1213	ggcgcgcgcggttggtttttttgaagtgatatttaacggtccgcgcgtgaaacaaacga	1272
Db	1209	ggggcggggtgtcttatttttgagggtaattttacagatcccaattccaact	1268
QY	1273	tggcgaagcgcgggcggttcatatcatgatacgtgaagacagtaacggttacttgyaa	1332
Db	1269	tggcgaagagcggtgcatacatgtaagtgaataatagcacgcgttacttgyaaagtga	1328
QY	1333	gtggcaaacgcgcgcgttccaaaatcgcgaaagcgacgcttgacagttcaagccaaagg	1392
Db	1329	gtggaactgtgcagactttcaaatctgttaaggaacatgtgcagcttcaagccaaagg	1388
QY	1393	gaaaaccaaagcctcgatcagcggttggcgcaggtacagtaacatcttgyatacgcag	1452
Db	1389	gaaataaaggttcgatccagtcgtagcgatgtaagtaagtaacttttggcgacgcag	1448
QY	1453	gataaagcgaacaaacgccttaagtgaatcgcgcttgmccagcgcgcaggtgaagtg	1512
Db	1449	gatcaagcgacaacaaacgcctttagtgaatctggttgaacgcgcagaggaactgtt	1508
QY	1513	caactgaatgcgcgtaacagttcaacccgcgcgaactcattcgcgcttgcgcgcgga	1572
Db	1509	caattaaaacgatgataaacaattgtgatacgcgataaatttatttcggtcttcggtg	1568
QY	1573	cgtttggattttaaagcgcatctgcttgcgttccacgcgttaccgttacaatatccgat	1632
Db	1569	cgcttagtgccttaacgggcattcatcattaaaccttaacggtatcccaaatagcga	1628
QY	1633	gcgagatctgmcatlaaltgycacaacaaacatccacgcgtttaccattacagggatga	1692
Db	1629	gcaatgatttgyaaacataatatacacaacgcgctaagcttaactattcaggtga	1688
QY	1693	agtatatacaaacgcgagtgtaagaataatcagacttaacttaacgaagaattggc	1752
Db	1689	agcattgttctacctaactggaataatataataaacttgattacgaanaagaattg	1748
QY	1753	tacaacggttggttggcgcgaagaaatagacgaacaaacgaacgcgcgttcaacgtt	1812
Db	1749	tacaacggttggttggcgcgaacagataaataataacacaaatgvcggtattaaact	1808
QY	1813	taccagccgcgcgcagaaacgcgcacccngctgtcttcgcgcgcgcgaacaaattaa	1872
Db	1809	tataaacacacacagaagactgttacttcttgacttgcaggttggtatacaaat	1868
QY	1873	aacatcaacgcgaacaaacgcgcaactgttttttcagcgcgcgcgcgcgcgcgcgc	1932
Db	1869	gatatctacaaacaaagtaaatatttttttcagcgcgttagaccgcgcgcgcgcgc	1928

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Db 2859 gttgaagaagaagaatcaaccgttcaagataagctcaaatcttacttagaataatgac 2918
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Db 2919 cccgttgaagcagcgcatctacgtataatagtgaaagcagtgagcgaattccgctg 2978
Oy 3133 cataatccggtcaagaagaagcgtttccgaacactcggaagc----- 3179
Db 2979 cataaccataaagaagcagaatgtgacaatagtttagtaagcgaggaacgaagaa 3038
Oy 3180 -----agaagcccaaaaaaacagcggaanaaagaacacgcgcaagcttgacgctg 3231
Db 3039 cgaacattagaagccaaacaagltgaaccgactgttaaacacaaacagcgagcaaaa 3098
Oy 3232 attgagcgagcgagcagctg---cgcgcaaaagaagaagcgttgcgaacccgcccg 3288
Db 3099 gtgcggtcaagaagaagcagcgagacgcttccctgaaccctgcgtgacaaagcctg 3158
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Db 3159 ttaacgcattagaagccaaacaagctgaactgactgtgtaaacacaaagaagtaagca 3218
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Db 3219 aaaacaaaagaatgctggtcaaaaagagcagtglttctgtaaccctgtgataaagc 3278
Oy 3409 gccttccccgcgccccgngcgccccgagatttgcgcgaacccgcgccccacgcgaa 3468
Db 3279 ctgttcgcattagaagccgcgaactggaagtattgtatgccacagcaatcggaagaagat 3338
Oy 3469 cctcaaccacaa-----ccgcagcgcaaccctgatatagcgttat 3507
Db 3339 cgtctaagctcaagaagaagcggaanaaacacagcaaaaagacgttgatcagcgttat 3398
Oy 3508 gccaatagcgttggagtgaaatttccgcacgctcaacagcgttccgcgttaacagac 3567
Db 3399 tcaatagtcgtatacgaatatactgcgaacagtaaatagtaagcttccgttcaagat 3458
Oy 3568 gaattgagacgcgtgttgcggaagacgcgcgaacgngtlttgaaagngatccgg 3627
Db 3459 gaattagtcgtcttcttctgtatgacaaacacatctccggtgagcaaatatcgcacag 3518
Oy 3628 nacaccaaacactacggttcgaagatttccgcgctcaccgcgaac---aaaccgactg 3684
Db 3519 gataaaagacgctatgattcgtatgcttccgtcttatacagcaggaanaagcaacta 3578
Oy 3685 cgccaatcggtatgcagaaacactgcgcagcgagcggtcgcgttcgcatcgtttcgac 3744
Db 3579 cgtcaaatgggtgcaaaaagccttagcgaatgggagcaattgggcaatttctcgcat 3638
Oy 3745 aaccggaacgaanaacanttcgaacgacgcatcgcaacccgcgcgactgcccacgac 3804
Db 3639 agccgttcagataatcttctgtatgacaggttaaaaaatacgcgacattaaagatgac 3698
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Oy 3985 ggcgaacgcgcatatttcgcgaaaaagcgatattccgcgaacgaacacgtcaatcgcc 4044
Db 3879 ggaattatcgctatttatttgacgttgaaattatcaatcttaggaagtgagatgaaa 3938
Oy 4045 acccccgcttgcgtcaacgntaacgngcggaactgaagcagatttcatcctcaaa 4104

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Db 3939 acgctagccttgatttaactcgtataatgctggaacttcgagttgattatatacattact 3998
Oy 4105 ccgagcaaacacatnccatcaacncttatttagcctgctacataccgaatgcgcttg 4164
Db 3999 ccgacagatatatcagcgttaagccttatttcttcgtcaattatgttgatgttcaaac 4058
Oy 4165 ggcgaatccgaagaacgcgtcaataacgcgngatgttgctaggaatttcgcaaacccg 4224
Db 4059 gctaacgtlaaanaaccacggtlaaactlctacggtgtgtgcaacaacatttgagctatgg 4118
Oy 4225 agtgcgaatggggtgaacgcgaataacgaagtttcaacgtgtccnccacgctgac 4284
Db 4119 caaaaagaagtgagattaaagcgcaagaattttacatttccaaattccgctttatctca 4178
Oy 4285 ggcgcgaagngcgcgaactggaagcgcaacacagcgcggtgacataatagctacgc 4344
Db 4179 aaatcgaagttcaacacctcgcaaacagcaaatgtggcggtgaattgggctatcgt 4238
Oy 4345 tggtaa 4350
Db 4239 tggtaa 4244

```

RESULT 12

AAZ12250
ID AAZ12250 standard; DNK; 2991 BP.

AAZ12250;

08-OCT-1999 (first entry)

Neisseria meningitidis partial ORF1 sequence.

KW Neisseria meningitidis; Neisseria gonorrhoeae; antigen; vaccine;
treatment; Neisseria infection; meningitis; septicemia; gonorrhea; ss.

OS Neisseria meningitidis.

FT Key Location/Qualifiers

FT misc_feature 1316..1317

FT /tag= a
/note= "826 unspecified nucleotides are present
between these bases"

FT misc_feature 3005..3006
FT /tag= a
/note= "538 unspecified nucleotides are present
between these bases"

PN WO9924578-A2.

PD 20-MAY-1999.

PF 09-OCT-1998; 98WO-1B01665.

PR 01-SEP-1998; 98GB-0019016.

PR 06-NOV-1997; 97GB-0023516.

PR 14-NOV-1997; 97GB-0024190.

PR 18-NOV-1997; 97GB-0024386.

PR 27-NOV-1997; 97GB-0025158.

PR 10-DEC-1997; 97GB-0026147.

PR 14-JAN-1998; 98GB-0000759.

PA (CHIR-) CHIRON SPA.

PI Grandi G, Masignani V, Pizza M, Rappuoli R, Scarlato V;
DR WPI: 1999-327407/27.
PT P-PSDB; AAY38822.XX

PS Proteins from Neisseria meningitidis and N. gonorrhoeae useful for
diagnosis, treatment and prevention of infection
Claim 9; Page 358-359; 524pp; English.

Db 2758 attccatcacgccttatttgctgtccttactacagatgcgcttcggaacatccga 2817
 Qy 4177 acacgcgtacatccgngatgtgtcgaagtttcgcgaacacccgcatgctgaatg 4236
 Db 2818 acacgcgtacatccgngatgtgtcgaagtttcgcgaacacccgcatgctgaatg 2877
 Qy 4237 ggcgtacacgcgcgaatcaaaagtttcacgctgtctcncacacgctgcgcgcgaag 4296
 Db 2878 ggcgtacacgcgcgaatcaaaagtttcacgctgtctcncacacgctgcgcgcgaag 2937
 Qy 4297 ccgcaactggaagcgcaacacagcgcggaatcaaatgaagctacgctgtgtaa 4350
 Db 2938 ccgcaactggaagcgcaacacagcgcggaatcaaatgaagctacgctgtgtaa 2991
 RESULT 13
 AAA81401
 ID AAA81401 standard; DNA; 891 BP.
 XX AAA81401;
 AC 04-DEC-2000 (first entry)
 DT
 XX
 DE N. meningitidis Memb Internal polynucleotide sequence ORF number 76.
 XX
 KW Neisseria meningitidis; Neisseria gonorrhoeae; genome; immunogenic;
 RV antigen; vaccine; diagnosis; infection; antibacterial; identification;
 KW Meningococcus B; Memb; ds.
 OS Neisseria meningitidis.
 XX
 PN WO200022430-A2.
 FN 20-APR-2000.
 PD
 XX
 PF 08-OCT-1999; 99WO-US23573.
 XX
 PR 09-OCT-1998; 98US-0103794.
 PR 30-APR-1999; 99US-0132068.
 XX
 PA (CHIR) CHIRON CORP.
 XX
 PI Frazer CM, Hickey E, Peterson J, Tettelin H, Venter JC;
 PI Maignani V, Galeotti C, Mora M, Ratti G, Scarselli M, Scariato V;
 PI Rappelli R, Pizzi M;
 XX
 DR WPI: 2000-318079/27.
 XX
 PT Isolated nucleotide sequences of Neisseria meningitidis which can be
 PT used in the diagnosis and treatment of N. meningitidis infection and
 PT other Neisseria infections, for example, N.gonorrhoea
 XX
 PS Disclosure; Page 219; 1760pp; English.
 XX
 CC The present invention describes methods of obtaining immunogenic
 CC proteins from Neisseria genomic sequences. AAA81453 to AAA82414
 CC represent specifically claimed Neisseria meningitidis genomic DNA
 CC sequences. AAA81260 to AAA81303 and AAB25620 to AAB25663 represent
 CC Neisseria DNA sequences and their corresponding proteins. AAA81254 to
 CC AAA81259 and AAA81304 to AAA81321 represent PCR primers used in the
 CC isolation of Neisseria meningitidis DNA sequences; and AAA81322 to
 CC AAA81452 represent Neisseria meningitidis DNA sequences; and AAA81322 to
 CC sequences, which are all used in the exemplification of the present
 CC invention. The nucleic acid sequences, protein sequences, and antibodies
 CC against them, can be used in the manufacture of a composition. The
 CC composition can be used as a medicament (or in the manufacture of a
 CC medicament) for treating, preventing or diagnosing infection due to
 CC Neisseria bacteria. For example, some of the identified proteins could
 CC be components of vaccines against Meningococcus B; against all serotypes;
 CC and/or against all pathogenic Neisseriae. Identification of sequences
 CC from the bacterium will also facilitate production of biological probes,
 CC particularly organism-specific probes. Attempts to make efficacious

CC Meningococcus B vaccines have failed mainly due to antigen tolerance.
 CC Multivalent vaccines have also been tried but none have successfully
 CC overcome antigenic variability. The provision of further, complete
 CC sequences may provide an opportunity to identify secreted or surface
 CC exposed proteins that may be presumed targets for the immune system and
 CC which are not antigenically variable or at least more conserved than
 CC other more variable regions.
 XX
 SQ Sequence 891 BP; 255 A; 258 C; 202 G; 171 T; 5 other;
 Query Match 18.2%; Score 790.8; DB 21; Length 891;
 Best Local Similarity 92.4%; Pred. No. 2,4e-214;
 Matches 823; Conservative 4; Mismatches 55; Indels 9; Gaps 1;
 Qy 2212 gataaagtgaattgcttactgaagaacgacnagcgaantgtaagctnctnmat 2271
 Db 1 gataaagtgaattgcttactgaagaacgacnagcgaantgtaagctnctnmat 60
 Qy 2272 naagntntnaaanctnmgngctnmcncaatnaangcaattctgtgaatg 2331
 Db 61 cagcgtcaatttaattcacaagcgtctgcacacatcaacgcaatcttagtgaatg 120
 Qy 2332 gatacagttatacgtacacgacacgacacgacacacgacacacgacacacgacac 2391
 Db 121 gatacagttatacgtacacgacacgacacgacacacgacacacgacacacgacac 180
 Qy 2392 aatgcacacacacatttaacacgacacacacacacacacacacacacacacac 2451
 Db 181 aatgcacacacacatttaacacgacacacacacacacacacacacacacacac 240
 Qy 2452 gcttcatttaattgaagcaacacgacacacacacacacacacacacacacacac 2511
 Db 241 gcttcatttaattgaagcaacacgacacacacacacacacacacacacacacac 300
 Qy 2512 gcttcatttaattgaagcaacacgacacacacacacacacacacacacacacac 2571
 Db 301 gcttcatttaattgaagcaacacgacacacacacacacacacacacacacacac 360
 Qy 2572 gcttcatttaattgaagcaacacgacacacacacacacacacacacacacacac 2631
 Db 361 gcttcatttaattgaagcaacacgacacacacacacacacacacacacacacac 420
 Qy 2632 ttacacttaaaagacagcgaatgagcgtcgcgtgaagcgaatgagcgaatgagc 2691
 Db 421 ttacacttaaaagacagcgaatgagcgtcgcgtgaagcgaatgagcgaatgagc 480
 Qy 2692 ctggaacacgac 2751
 Db 481 ctggaacacgac 540
 Qy 2752 accggaagtgctcagacacgacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 2802
 Db 541 accggaagtgctcagacacgacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 600
 Qy 2803 tccgttacacgcgcac 2862
 Db 601 tmggttacacgcgcac 660
 Qy 2863 ttgaacngfcaaggaac 2922
 Db 661 ttgaacngfcaaggaac 720
 Qy 2923 ttgaacngfcaaggaac 2982
 Db 721 ttgaacngfcaaggaac 780
 Qy 2983 gaacccgtgaagcgtcgaatgaattgaacgagtgaggaaggaaggaacacacacac 3042
 Db 781 gaacccgtgaagcgtcgaatgaattgaacgagtgaggaaggaaggaacacacacac 840
 Qy 3043 gaaac 3093

DB 841 gaaaccttaattcacctgcgaacacacgctgcatgcgctgtg 891

RESULT 14

AAA81402

AAA81402 standard; DNA; 781 BP.

AAA81402;

04-DEC-2000 (first entry)

N. meningitidis MenB 3' polynucleotide sequence ORF number 76.

Neisseria meningitidis; Neisseria gonorrhoeae; genome; immunogenic;

antigen; vaccine; diagnosis; infection; antibacterial; identification;

Meningococcus B; MenB; ds.

Neisseria meningitidis.

WO200022430-A2.

20-APR-2000.

08-OCT-1999; 99WO-US23573.

09-OCT-1998; 98US-0103794.

30-APR-1999; 99US-0132068.

(CHIR) CHIRON CORP.

Frazier CM, Hickey E, Peterson J, Tettein H, Venter JC, Mesigian V, Galeotti C, Mora M, Ratti G, Scarselli M, Scarlato V, Rappuoli R, Pizzi M;

WP1; 2000-318079/27.

Isolated nucleotide sequences of Neisseria meningitidis which can be used in the diagnosis and treatment of N. meningitidis infection and other Neisserial infections, for example, N.gonorrhoea -

Disclosure; Page 219; 1760pp; English.

The present invention describes methods of obtaining immunogenic proteins from Neisseria genomic sequences. AAA81453 to AAA82414 represent specifically claimed Neisseria meningitidis genomic DNA sequences. AAA81260 to AAA81303 and AAB25620 to AAB25663 represent Neisseria DNA sequences and their corresponding proteins. AAA81254 to AAA81259 and AAA81304 to AAA81321 represent PCR primers used in the isolation of Neisseria meningitidis DNA sequences; and AAA81322 to AAA81452 represent Neisseria meningitidis MenB polynucleotide ORF sequences, which are all used in the exemplification of the present invention. The nucleic acid sequences, protein sequences, and antibodies against them, can be used in the manufacture of a composition. The composition can be used as a medicament (or in the manufacture of a medicament) for treating, preventing or diagnosing infection due to Neisserial bacteria. For example, some of the identified proteins could be components of vaccines against Meningococcus B; against all serotypes; and/or against all pathogenic Neisseriae. Identification of sequences from the bacterium will also facilitate production of biological probes, particularly organism-specific probes. Attempts to make efficacious Meningococcus B vaccines have failed mainly due to antigen tolerance. Multivalent vaccines have also been tried but none have successfully overcome antigenic variability. The provision of further, complete sequences may provide an opportunity to identify secreted or surface exposed proteins that may be presumed targets for the immune system and which are not antigenically variable or at least more conserved than other more variable regions.

Sequence 781 BP; 183 A; 256 C; 201 G; 137 T; 4 other;

Query Match 17.0%; Score 739.4; DB 21; Length 781;
Best Local Similarity 96.5%; Pred. No. 9,4e-200;

Matches 754; Conservative 3; Mismatches 23; Indels 1; Gaps 1;

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QY 3571 ttgacgcggtgtttgcgaagaccgcgcgaacgntttggaaacgcatccggnac 3630
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QY 3631 accaaacacacgttcgcgaagatttcgcgcctaccgcgaacaaacacgcatccgca 3690
DB 61 accaaacacacgttcgcgaagatttcgcgcctaccgcgaacaaacacgcatccgca 120
QY 3691 atcggtatgcagaanaaacctcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 3750
DB 121 atcggtatgcagaanaaacctcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 180
QY 3751 accgaaacacacgttcgcgaagatttcgcgcctaccgcgaacaaacacgcatccgca 3810
DB 181 accgaaacacacgttcgcgaagatttcgcgcctaccgcgaacaaacacgcatccgca 240
QY 3811 ttgcggaatacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 3869
DB 241 ttgcggaatacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 300
QY 3870 cagcggaacatctctacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 3929
DB 301 cagcggaacatctctacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 360
QY 3930 catcagacacgatacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 3989
DB 361 catcagacacgatacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 420
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DB 421 aacgcgcatttcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 480
QY 4050 cggcttcgttcacacccntacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 4109
DB 481 cggcttcgttcacacccntacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 540
QY 4110 gcaacacatctcaccacacacacacacacacacacacacacacacacacacacacac 4169
DB 541 gcaacacatctcaccacacacacacacacacacacacacacacacacacacacacac 600
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QY 4350 a 4350
DB 781 a 781

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RESULT 15

AAA81400

AAA81400 standard; DNA; 1312 BP.

AAA81400;

04-DEC-2000 (first entry)

N. meningitidis MenB 5' polynucleotide sequence ORF number 76.

Neisseria meningitidis; Neisseria gonorrhoeae; genome; immunogenic;

antigen; vaccine; diagnosis; infection; antibacterial; identification;

Meningococcus B; MenB; ds.

OS *Neisseria meningitidis*.
 xx WO200022430-A2.
 xx 20-Apr-2000.
 xx 08-Oct-1999; 99WO-US25373.
 xx 09-Oct-1998; 98US-0103794.
 xx 30-Apr-1999; 99US-0132068.
 xx (CHIR) CHIRON CORP.
 xx
 xx Frazer CM, Hickey E, Peterson J, Tettelin H, Venter JC;
 xx Maignani V, Galeotti C, Mora M, Ratti G, Scarselli M, Scarlato V;
 xx Rappunli R, Pizzo M;
 xx WPI: 2000-318079/27.
 xx
 xx Isolated nucleotide sequences of *Neisseria meningitidis* which can be
 xx used in the diagnosis and treatment of *N. meningitidis* infection and
 xx other *Neisserial* infections, for example, *N.gonorrhoea* -
 xx
 xx Claim 7; Page 1411-1420; 1/60pp; English.
 xx
 xx The present invention describes methods of obtaining immunogenic
 xx proteins from *Neisseria* genomic sequences. AA81453 to AA82414
 xx represent specifically claimed *Neisseria meningitidis* genomic DNA
 xx sequences. AA81260 to AA81303 and AAB25620 to AAB25663 represent
 xx *Neisseria* DNA sequences and their corresponding proteins; AA81254 to
 xx AA81259 and AA81304 to AA81321 represent PCR primers used in the
 xx isolation of *Neisseria meningitidis* DNA sequences; and AA81322 to
 xx AA81452 represent *Neisseria meningitidis* *MenB* polynucleotide ORF
 xx sequences, which are all used in the exemplification of the present
 xx invention. The nucleic acid sequences, protein sequences, and antibodies
 xx against them, can be used in the manufacture of a composition. The
 xx composition can be used as a medicament (or in the manufacture of a
 xx medicament) for treating, preventing or diagnosing infection due to
 xx *Neisserial* bacteria. For example, some of the identified proteins could
 xx be components of vaccines against *Meningococcus B*; against all serotypes;
 xx and/or against all pathogenic *Neisseriae*. Identification of sequences
 xx from the bacterium will also facilitate production of biological probes,
 xx particularly organism-specific probes. Attempts to make efficacious
 xx *Meningococcus B* vaccines have failed mainly due to antigen tolerance.
 xx Multivalent vaccines have also been tried but none have successfully
 xx overcome antigenic variability. The provision of further, complete
 xx sequences may provide an opportunity to identify secreted or surface
 xx exposed proteins that may be presumed targets for the immune system and
 xx which are not antigenically variable or at least more conserved than
 xx other more variable regions.
 xx
 xx Sequence 30078 BP; 6365 A; 7264 C; 8488 G; 7960 T; 1 other;
 xx SQ

```

Query Match          4.4%: Score 191.4; DB 21; Length 30078;
Best Local Similarity 58.8%; Pred. No. 7.3e-43;
Matches 346; Conservative 0; Mismatches 239; Indels 3; Gaps 1

QY 1161 ttatcagattacgcgaacgcgaacatcatcttatacaacaacataccaagcgcg99 1220
Db 22246 TGTTACCTTTGAAAMCAACGGACACTTGGTATTGGATTCAAAACCAACGAGCGCGG 22187
QY 1221 cggtttgattatgaagagtgattttacgggtctgcgcctggaataacaga---aacgtgga 1277
Db 22186 CGGTCGCTTTTTCAAAGGCGGATTTACACAGTCACAAAGTATTAATATATACATCACTTGGCT 22127
QY 1278 aggcgcgcgcgtcatcatcatcagtgaagaacagttaccgttacttgcgaagtaaacgcgcgtg9c 1337
Db 22126 AGGTGGCGGGGATTGATGTTGCCGACGCGCAAAAAAAGTCTGTTGGCAAGTCAAAAAATCGGA 22067
QY 1338 aaacgcgcgcgcgtccataaatcgcgaagaagcagcgtgcagcttcaagccaaaggggaaaa 1397
Db 22066 TGGCGACAGATTGGCAAAATCGGCAAAAGGCACTTTACAAATTAACGCGACAGCGCTTAA 22007

```

OY 1398 ccaagcgtcgaatcagcagcggcgagcgagcagcgaatcatttgatcagcagcagcagatata 1457
 Db 22006 CCAGGGGCAATTAAAAGTCGGCGAGCGGTACGGTTATTCTGAATCAACAGCCGATCCGA 21947
 OY 1458 aggcacaaaacaagcccttagtgaatcgcgttgntcagcgcaggggtacggtgcaact 1517
 Db 21946 CAAAAGAAGCCAGGGCTTCTCCCAAGTCCGATTTGTCAGGGAGACGGCGTCAATTGGTATT 21887
 OY 1518 gaatgcgataatcagttcgaaccccgacaaactcatttcggtcgttcggcgagcagttt 1577
 Db 21886 AATATGTTCAATATCAGATTAAATCCCGATTAACCTATATTGTGGTTTCCGTGGCGTGT 21827
 OY 1578 ggaattaaaggcgacgttcgcttgcttcaccggtatccaataatcagatgaagggcagt 1637
 Db 21826 GGATGCGCAATGSCAATGACTTGACTTTTGAAACACATCCGCAAGCTGGATCAAGGCGCG 21767
 OY 1638 gatgncatcataatagccacaacaacatccaccgttaccattacagggatgaagat 1697
 Db 21766 CATGTGTCAACCAACAGACAGCGCCAGCGCTCCACATCAGCGCTAACGGGTAAATCTTGA 21707
 OY 1698 taccaaccggagtggtgaagaatcatcatagacttaattacagcaaga 1745
 Db 21706 TACCGATCCCAAAACCATCTCTATTCAATTATTCAAAATAATGATGA 21659
 RESULT 18
 AAF21608/C
 ID AAF21608 standard; DNA; 349980 BP.
 XX AAF21608;
 AC
 XX
 XX
 DT 13-MAR-2001 (first entry)
 DE Neisseria meningitidis B nucleotide sequence SEQ ID NO:109.
 XX
 KW Neisseria meningitidis; Neisseria gonorrhoeae; Immunogenic; vaccine;
 KM diagnosis; antigen; detection; infection; gene therapy; antibacterial;
 KW ds.
 XX
 XX
 OS Neisseria meningitidis.
 XX
 PA W0200066791-A1.
 XX
 PN
 PD 09-NOV-2000.
 XX
 XX 08-MAR-2000; 2000WO-US05928.
 PF
 XX 30-APR-1999; 99US-0132068.
 PR 08-OCT-1999; 99WO-US23573.
 PR 28-FEB-2000; 2000GB-0004659.
 XX
 XX (CHIR) CHIRON CORP.
 PA (GENO-) INST GENOMIC RES.
 PA
 PI Piza M, Hickey E, Peterson J, Tettelin H, Venter JC, Masignani V,
 PI Galeotti C, Mora M, Ratti G, Scarselli M, Scarlato V, Rappuoli R,
 PI Frazer CM, Grandi G;
 XX
 XX WPI: 2000-647603/62.
 XX
 DR Neisseria meningitidis B full length genome sequence and open reading
 PT frames are used to detect, treat and prevent Neisserial infections -
 PT
 XX
 PS Claim 7; Appendix A; 692pp; English.
 XX
 CC The present invention describes the full length genome of
 CC Neisseria meningitidis B (NMB). The sequences in AAF21544 and AAF21607
 CC to AAF21613 represent fragments of the NMB genomic sequence, as the
 CC sequence was too long to go in a record on its own it was split into 8
 CC sequences which overlap each other at the beginning and end of each
 CC sequence by 49980 bp (i.e. the last 49980 bp of AAF21544 is repeated at
 CC the beginning of AAF21607, the last 49980 bp of AAF21607 are repeated at

RESULT	20
AAA81472/c	
ID	AAA81472 standard; DNA; 16526 BP.
XY	

N. meningitidis partial DNA sequence gnm_20 SEQ ID NO:20.

KW *Neisseria meningitidis*; *Neisseria gonorrhoeae*; genome; immunogenic;
 KW antigen; vaccine; diagnosis; infection; antibacterial; identification,
 KW *Meningococcus B*; MenB; ds.

Neisseria meningitidis.

PN WO200022430-A2.

PD 20-APR-2000.

PF 08-OCT-1999; 99WO-US23573.

PR 09-OCT-1998; 98US-0103794.

XX
XX

PA (CHIR) CHIRON CORP.

Frazer CM, Hickey E, Peterson J, Tettelin H, Venter JC;

PI Rappuoli R, Pizza M;

DR WPI; 2000-318079/27.

PT isolated mucinoid sequences of *Neisseria meningitidis* which can be
 PT used in the diagnosis and treatment of *N. meningitidis* infection and
 PT other *Neisseria* infections, for example, *N. gonorrhoea* -
 XX
 PS Claim 7; Page 466-471; 1760pp; English.
 PS
 XX

The present invention describes methods of obtaining immunogenic proteins from *Neisseria* genomic sequences. AA81453 to AA82414 represent specifically claimed *Neisseria meningitidis* genomic DNA sequences: AA81260 to AA81303 and AAB25620 to AAB25663 represent *Neisseria* DNA sequences and their corresponding proteins; AA81254 to AA81259 and AA81304 to AA81331 represent PCR primers used in the isolation of *Neisseria meningitidis* DNA sequences; and AA81322 to AA81452 represent *Neisseria meningitidis* Mena polynucleotide ORF sequences, which are all used in the exemplification of the present invention. The nucleic acid sequences, protein sequences, and antibodies against them, can be used in the manufacture of a composition. The composition can be used as a medicament (or in the manufacture of a

measlement) for treating, preventing or diagnosing infection due to Neisserial bacteria. For example, some of the identified proteins could be components of vaccines against *Meningococcus B*; against all serotypes and/or against all pathogenic Neisseriae. Identification of sequences from the bacterium will also facilitate production of biological probes, particularly organism-specific probes. Attempts to make efficacious *Meningococcus B* vaccines have failed mainly due to antigen tolerance. Multivalent vaccines have also been tried but none have successfully overcome antigenic variability. The provision of further, complete sequences may provide an opportunity to identify secreted or surface exposed proteins that may be presumed targets for the immune system and which are not antigenically variable or at least more conserved than other more variable regions.

50 Sequence 16526 BP; 3183 A; 4006 C; 5067 G; 4268 T; 2 other;

Query Match	4.18;	Score 177.4;	DB 21;	Length 16526;
Best Local Similarity	60.08;	Pred. No. 5e-39;		
Matches 311; Conservative	0;	Mismatches 204;	Indels 3;	Gaps 1

QY 1171 tacgcaacgcaactcatctatcaaacacatcaaccaagcgcggttgtat 1230

Db 7260 TTCGACAACAACACTGATGCTGGCAGACAATATCAACCAAGGGCGCAGGCATTGCAG 7201

QY 1231 ttctgaagtgatttctacggtctcgcctgaaacacgaaactgcaagcgcggtt 1290

Db 7200 TTGACAGCACTTCACCGTCGTCGGTAAAAACACAC---ACATGGCAAGTGCAGGCGTT 7144

QY 1291 catatcagtgaaagacagtaccgttacttggaaagtaaacgycgttggcaaacgaccgcctg 1350

DB / 143 ATCGTAGCCGACGGCAAAACGGCTCTTCTGGCAAGTCAGCAACCCCAAAGGCGACCGGCTC 7084

1351 tccaataatcggaagcgctgcacgttcaagccaagggyaaaaccaagctcgtac 1410

DB / 083 TCCAACTGGCGCAGGCACGCTTATCGCCAACGGACAAGGCATCAACCGAGGGGACATC 7024

1411 agcgtgggcgacgtacagtcatttggatcagcagcagcgtataagcacaacaa 1470

DB / 023 AGCAITCGGGGAAGGCACITGCTGACTCGCCCAAAAAGCTGCTTCAGACGGCAGCAACAA 6964

14/1 gcccttagtgaatcggcttgntcagcggcagggtacggtgcaactgaatgccgataat 1530

bp 6963 GCAATCAACCAAGTCTGGCAATCACCGAGCGGGCAGCGCCGTCTCGCCGACAGCCAG 6904

1531 cagllccaaacccgacaaactctatttcgcttcgcgcgcgacgtltggaatttaaacyg 1590

PD 0903 CAAATCAAAACCGAAACCTCTATTTTCGGCTTCAAGGGCGGACGGCTCGACCTCAACGGC 6844

cccccgcacccaaccgagggcgatgatgcnatcat 1650

0075 ANNNCC119CCL11ACCHAI1CGCAIGCGGACGGCGGCAGAAICGICAAICAC 6/84

10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0

[illegible]

RESULT 21

ID AAF21613 standard; DNA; 172325 BP.

AC AAF21613;

DT 13-MAR-2001 (first entry)

DE *Neisseria meningitidis* B nucleotide sequence SEQ ID NO:114.

KW *Neisseria meningitidis*; *Neisseria gonorrhoeae*; immunogenic; vaccine;

KN ds.

05 *Neisseria meningitidis*.

CC due to Neisserial bacteria or as a diagnostic reagent for detecting the
CC presence of Neisserial bacteria or of antibodies raised to Neisserial
CC bacteria. Computers, computer memory, computer storage medium or computer
CC databases can be used in a search to identify open reading frames (ORFs)
CC or coding sequences within the NMB genome. The DNA sequences provide
CC further opportunities to find antigenic or immunogenic proteins which are
CC more effective in vaccines than the outer membrane proteins currently
CC used.

XX
SQ Sequence 349980 BP; 86473 A; 95646 C; 85908 G; 81953 T; 0 other;

Query Match 4.1%; Score 177.4; DB 21; Length 349980;
Best Local Similarity 60.0%; Pred. No. 3e-38;
Matches 311; Conservative 0; Mismatches 204; Indels 3; Gaps 1;

QY 1171 tacggcaacggcgaactatctatcaacaacatcaacgaagcgcggttctat 1230
DB 308178 ttcgacaacaacacatctgtctgcagacataatcaacgaagcgcgcatctgca 308237
QY 1231 ttggaagtgattttagcgtctgcgtgaagaagaagcgtgcaagcgcggtt 1230
DB 308238 ttgcagacgaacttccacgtctgcgtgaagaagaagcgtt 308294
QY 1291 catatcagtgagaagcagcttacttctggaagtaacggtgcaacgacgcctg 1350
DB 308295 atcgttagcgcgaacgaacggtcttctggaagtcgaaccccaagcgacgcctc 308354
QY 1351 tcgaacatcggaagcagcgtcgaagtcgaacgaaggggaagcgaagcgtcgtc 1410
DB 308355 tcgaacatcggaagcagcgtcgaagtcgaacgaaggggaagcgaagcgtcgtc 308414
QY 1411 agcgtggaagcagcgttacttctggaagtcgaacgaaggggaagcgaagcgtcgtc 1470
DB 308415 agcgtggaagcagcgttacttctggaagtcgaacgaaggggaagcgaagcgtcgtc 308474
QY 1471 gctttagtgaaatcggtctgntcagcggaaggggaagcgaagtcgaagtcgtcgtc 1530
DB 308475 gcatcgaacgaagtcgtcgtcgaaggggaagcgaagtcgtcgtcgtcgtcgtcgtc 308534
QY 1531 cagttcaacccgcaacacttatctggtcttgcggtcggaagtcgttgaattaaagcg 1590
DB 308535 caatcaaacccgcaacacttatctggtcttgcggtcggaagtcgttgaattaaagcg 308594
QY 1591 catcgcttctggtccacggtatcaaatcaaatcaaatcaaatcaaatcaaatcaaat 1650
DB 308595 aacaacttgccttaccatctcgcacatcggaagcgcggtcgaacatctgcaatcac 308654
QY 1651 aatgcaacaacaatcaccgttaccatcaagga 1688
DB 308655 aacctgacaacgacgacatgacgtgacggca 308692

RESULT 23
AAQ06164
ID AAQ06164 standard; DNA: 5091 BP.

XX
AC AAQ06164;

XX
DT 31-JAN-1991 (first entry)

XX
DE The iga gene, encoding Iga1 protease.

XX
KW Iga1; vaccine; meningitis; gonorrhoea; allergies; ss.

XX
OS Haemophilus influenzae.

XX
FH Key Location/Qualifiers

FT CDS 262..4887

FT /tag- a

FT /product-Iga1 protease

FT 235..240

FT -10-signal

FT /tag- b

FT -35-signal 211..215
FT /tag- c
FT RBS 248..253
FT /tag- d

XX
PN W09011367-A.

XX
PD 04-OCT-1990.

XX
PF 16-MAR-1990; 90WO-DK00073.

XX
PR 17-MAR-1989; 89DK-0001308.

XX
PH (KILL/) KILLIAN M.

XX
PI Killian M., Poulsen K;

XX
DR WPI: 1990-320267/42.

XX
DR P-PSDB; AAR07304.

XX
PT Immunoglobulin A1 protease prodn. - by cloning from

XX
PT microorganisms for immunisation against immunoglobulin A1

XX
PS protease producing bacteria

XX
PS Disclosure; fig 3; 44pp; English.

CC This iga gene is from H. influenzae serotype b strain HK368. On

CC transformation of E. coli cells with a vector contg. this gene,

CC immunoglobulin (Ig)A1 protease is produced which is useful in a

CC vaccine for e.g. meningococcal meningitis, gonorrhoea or allergic

XX
XX
XX
SQ Sequence 5091 BP; 1862 A; 873 C; 979 G; 1377 T; 0 other;

Query Match 3.6%; Score 158; DB 11; Length 5091;
Best Local Similarity 57.7%; Pred. No. 8.3e-34;
Matches 319; Conservative 0; Mismatches 228; Indels 6; Gaps 2;

QY 1161 ttatcgaattacggaacggaacactcatctatcaacaacatcaacgaagcgcg 1220
DB 1410 tttatcgaattacggaacggaacactcatctatcaacaacatcaacgaagcgcg 1469
QY 1221 cgttgaattacggaacggaacactcatctatcaacaacatcaacgaagcgcg 1277
DB 1470 cgttgaattacggaacggaacactcatctatcaacaacatcaacgaagcgcg 1529
QY 1278 aggcggtggtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtc 1337
DB 1530 aggcggtggtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtc 1589
QY 1338 aaagcggtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtc 1397
DB 1590 aaagcggtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtc 1649
QY 1398 ccaaggtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtc 1457
DB 1650 ccaaggtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtc 1709
QY 1458 aggcgaacaaacagcgttgaatgaatgaatgaatgaatgaatgaatgaatgaatgaat 1517
DB 1710 aggcgaacaaacagcgttgaatgaatgaatgaatgaatgaatgaatgaatgaatgaat 1766
QY 1518 gaatgcggtatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaat 1577
DB 1767 gaatgcggtatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaat 1826
QY 1578 gaatgcggtatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaat 1637
DB 1827 gaatgcggtatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaat 1886
QY 1638 gattgnaatcaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaatgaat 1697

Db 1887 actagtaatacataatgactaatgctcctaataatacagattactgggaaagtctaat 1946
Qy 1698 tacacaacagagt 1710
|||||
Db 1947 taacagatccaat 1959

RESULT 24

ABA89172
ID ABA89172 standard; DNA; 4113 BP.

AC ABA89172;

DT 11-FEB-2002 (first entry)

DE Escherichia coli polynucleotide SEQ ID NO 890.

XX Escherichia coli; B2/D+A-; antiinflammatory; antibacterial;

KW immunosuppressive; extra-intestinal infection; phylogeny; meningitis;

KW systemic infection; non-diarrhoeal infection; septicemia;

KW pyelonephritis; antibiotic resistance; ds.

OS Escherichia coli.

PN WO20016572-A2.

PD 13-SEP-2001.

PF 12-MAR-2001; 2001WO-EP03445.

PR 10-MAR-2000; 2000FR-0003145.

PR 02-FEB-2001; 2001FR-0001449.

XX (INRM) INSERM INST NAT SANTE & RECH MEDICALE.

PA Bingen E, Bonacorsi S, Clermont O, Nassif X, Tinsley C;

PI WPI; 2001-550253/61.

DR A library of DNA fragments of Escherichia coli strains for the

PT phylogenetic determination of a given strain comprises polynucleotides of

PT nature B2/D+ A-.

PS Example 6; Fig 6; 646bp; English.

XX The invention relates to a library of DNA fragments of Escherichia coli

CC strains comprising polynucleotides (ABA88577-ABA88729 and ABA89533)

CC and encoded proteins (ABBS2459-ABBS2919 and ABBS2954-ABBS3094) of nature

CC B2/D+A-. The polynucleotides have potential antiinflammatory,

CC antibacterial and immunosuppressive activity as part of pharmaceutical

CC compositions used to treat, palliate or prevent extra-intestinal E. coli

CC infections. The polypeptides are useful for determining the phylogenic

CC group of a given E. coli strain. These polypeptides can detect and treat

CC an undesired development of E. coli, particularly an extra-intestinal

CC infection that include systemic and non-diarrhoeal infections such as

CC septicemia, pyelonephritis and meningitis this is particularly

CC advantageous as bacterial resistance is increasing with the more

CC frequent use of broad spectrum antibiotics.

CC Sequence 4113 BP; 1112 A; 950 C; 1105 G; 946 T; 0 other;

XX Query Match 3.2%; Score 138.2; DB 22; Length 4113;

XX Best Local Similarity 55.5%; Pred. No. 3.1e-28;

XX Matches 263; Conservative 0; Mismatches 211; Indels 0; Gaps 0;

Qy 1177 aacggcaaccatctatcaacaacatcaccagcgcggttgatttga 1236

Db 1084 aacggtgaattgtcctaaagacagtgactcaggggcggttactcgattaa 1143

Qy 1237 ggtattacagctcgcctgaacacgaacgagcgagcgcggtcatatc 1296

Db 1144 gacagttacaccgtatctgcgtcgaatccgaaaaccggagcggtgcgcgcatattact 1203

Qy 1297 agtgaagacagtlaccgttactltgaaaglaaacgcytfgcaaacgcgcctgtccaaa 1356

Db 1204 gacaaagggaacgaatgtactctggaaggtcaacgggttgccggtlgacaacctgataaa 1263

Qy 1357 atcgcaaaagcagcgtgcagcttcaagccaaagggaacaaacagctgatcagctg 1416

Db 1264 ttgggggaaggaaacctgaccataacgaaacaggtgttaaacccggaggagctgaaacg 1323

Qy 1417 ggcgacggtacagtcattttgatcagcagcagcagcagcagcagcagcagcagcagcagc 1476

Db 1324 ggaagcgtacacgtgttacttaaccagcagcagcagcagcagcagcagcagcagcagcagc 1383

Qy 1477 agtgaatcgcgttntcagcgagcggtacggtgcacatgaatgcagataatcagttc 1536

Db 1384 agtccggaacacctgcagcagcagcagcagcagcagcagcagcagcagcagcagcagcagc 1443

Qy 1537 aaccgcgaacactatctatctgcgttctcgcgcgagcagcttgatttaaacggcattcg 1526

Db 1444 aatccgataacatctatctatctgcgttctcgcgcgagcagcttgatttaaacggcattcg 1503

Qy 1597 cttgcgtccaccgtatccaaatacagatgaaggcgatgattgnatcat 1650

Db 1504 gtlacccttaaccgcagcagcagcagcagcagcagcagcagcagcagcagcagcagcagc 1557

RESULT 25

ABA89141/C
ID ABA89141 standard; DNA; 48254 BP.

AC ABA89141;

DT 11-FEB-2002 (first entry)

DE Escherichia coli polynucleotide SEQ ID NO 829.

XX Escherichia coli; B2/D+A-; antiinflammatory; antibacterial;

KW immunosuppressive; extra-intestinal infection; phylogeny; meningitis;

KW systemic infection; non-diarrhoeal infection; septicemia;

KW pyelonephritis; antibiotic resistance; ds.

OS Escherichia coli.

PN WO20016572-A2.

PD 13-SEP-2001.

PF 12-MAR-2001; 2001WO-EP03445.

PR 10-MAR-2000; 2000FR-0003145.

PR 02-FEB-2001; 2001FR-0001449.

XX (INRM) INSERM INST NAT SANTE & RECH MEDICALE.

PA Bingen E, Bonacorsi S, Clermont O, Nassif X, Tinsley C;

PI WPI; 2001-550253/61.

DR A library of DNA fragments of Escherichia coli strains for the

PT phylogenetic determination of a given strain comprises polynucleotides of

PT nature B2/D+ A-.

PS Example 6; Fig 6; 646bp; English.

XX The invention relates to a library of DNA fragments of Escherichia coli

CC strains comprising polynucleotides (ABA88577-ABA88729 and ABA89533)

CC and encoded proteins (ABBS2459-ABBS2919 and ABBS2954-ABBS3094) of nature

CC B2/D+A-. The polynucleotides have potential antiinflammatory,

CC antibacterial and immunosuppressive activity as part of pharmaceutical

CC compositions used to treat, palliate or prevent extra-intestinal E. coli

CC infections. The polypeptides are useful for determining the phylogenic

CC group of a given E. coli strain. These polypeptides can detect and treat

CC an undesired development of E. coli, particularly an extra-intestinal

infection that include systemic and non-diarrhoeal infections such as
septicaemia, pyelonephritis and meningitis this is particularly
advantageous as bacterial resistance is increasing with the more
frequent use of broad spectrum antibiotics.

Sequence 48254 BP; 12342 A; 11284 C; 12417 G; 12211 T; 0 other;

Query Match 3.2%; Score 138.2; DB 22; Length 48254;
Best Local Similarity 55.5%; Pred. No. 1.3e-27;
Matches 263; Conservative 0; Mismatches 211; Indels 0; Gaps 0;

1177 aacggcaactatcttcaacaacatcaacgaagcgcggttgatttga 1236
1177 aacggcaactatcttcaacaacatcaacgaagcgcggttgatttga 1236
28915 AACGGCAATTGCTCTAAMACAGTGTGACTCAGGGCGCGGTATCTGAAATTAA 28956
1237 gttgattacggtctgcctcaaaaacgaagcgcggttgatttga 1236
1237 gttgattacggtctgcctcaaaaacgaagcgcggttgatttga 1236
28855 GACACTTACCGGTATCTGCTGAATCCGGAACCTGACGCGGTGCGCATTTATTA 28796
1297 agtgaagacggtacgttacttgaagtaacggtgcaaacgacgcttccaa 1356
28795 GACAAAGGAGCAATGTGACTGCAAGGTCAAGGGGTGCGGTGACAACTGCAATTA 28736
1357 atcggaagcgacgtcgaagtaacggtgcaaacgacgcttccaa 1416
28735 TTGGGGGAAGAACCTTACATTAACGAAAGGTGTAACCGCGGAGCACTGAAAAAC 28676
1417 ggcgacgtatagcttattgataagcagcagcagcagcagcagcagcagcagc 1476
28675 GGAAGCGGTACCGTGTGCTTACCAACGACGACGACGACGACGACGACGACGACG 28616
1477 agtgaagacggtacgttacttgaagtaacggtgcaaacgacgcttccaa 1356
28615 AGTTCCGTGACGACGACGACGACGACGACGACGACGACGACGACGACGACG 28556
1537 aacccgcaacactatcttgcgttcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 1596
28555 AATCCGGATTAACATTTTACGGGATACCGGGAGGTAAAGCTTAAATGATTAATGCC 28496
1597 ctctgttccacglatlcaaaataacgaatgaagggcgatgattgcnatcat 1650
28495 GTTACCTTACCGGACGCTGCGGATTAACGGGGCGGTGATTAACAAATTAAT 28442

RESULT 26
ABAB9142/c
ID ABA89142 standard; DNA: 48345 BP.

AC ABA89142;
XX
DT 11-FEB-2002 (first entry)
XX
DE Escherichia coli polynucleotide SEQ ID NO 830.
XX

KW immunosuppressive; extra-intestinal infection; phylogeny; meningitis;
KW systemic infection; non-diarrhoeal infection; septicaemia;
KW pyelonephritis; antibiotic resistance; ds.
XX

XX Escherichia coli.
XX OS
XX PN WO200166572-A2.

XX 13-SEP-2001.

XX 12-MAR-2001; 2001WO-EP03445.

XX 10-MAR-2000; 2000EP-0003145.
XX 02-FEB-2001; 2001EP-0001449.

XX (INRM) INSERM INST NAT SANTE & RECH MEDICALE.

PI Bingen E, Bonacorsi S, Clermont O, Nassif X, Tinsley C;
XX
XX WPI; 2001-550233/61.
XX

PT A library of DNA fragments of Escherichia coli strains for the
PT phylogenetic determination of a given strain comprises polynucleotides of
PT nature B2/D+ A- -
XX

PS Example 6; Fig 6; 646pp; English.

XX
XX The invention relates to a library of DNA fragments of Escherichia coli
XX strains comprising polynucleotides (ABA88577-ABA88729 and ABA89533)
XX and encoded proteins (AB552459-AB552919 and AB552954-AB553094) of nature
XX B2/D+ A- . The polynucleotides have potential anti-inflammatory,
XX antibacterial and immunosuppressive activity as part of pharmaceutical
XX compositions used to treat, palliate or prevent extra-intestinal E. coli
XX infections. The polypeptides are useful for determining the phylogenetic
XX group of a given E. coli strain. These polypeptides can detect and treat
XX an undesired development of E. coli, particularly an extra-intestinal
XX infection that include systemic and non-diarrhoeal infections such as
XX septicaemia, pyelonephritis and meningitis this is particularly
XX advantageous as bacterial resistance is increasing with the more
XX frequent use of broad spectrum antibiotics.

SQ Sequence 48345 BP; 12347 A; 11290 C; 12423 G; 12219 T; 66 other;

Query Match 3.2%; Score 138.2; DB 22; Length 48345;
Best Local Similarity 55.5%; Pred. No. 1.3e-27;
Matches 263; Conservative 0; Mismatches 211; Indels 0; Gaps 0;

1177 aacggcaactatcttcaacaacatcaacgaagcgcggttgatttga 1236
1177 aacggcaactatcttcaacaacatcaacgaagcgcggttgatttga 1236
28915 AACGGCAATTGCTCTAAMACAGTGTGACTCAGGGCGCGGTATCTGAAATTAA 28956
1237 gttgattacggtctgcctcaaaaacgaagcgcggttgatttga 1236
1237 gttgattacggtctgcctcaaaaacgaagcgcggttgatttga 1236
28855 GACACTTACCGGTATCTGCTGAATCCGGAACCTGACGCGGTGCGCATTTATTA 28796
1297 agtgaagacggtacgttacttgaagtaacggtgcaaacgacgcttccaa 1356
28795 GACAAAGGAGCAATGTGACTGCAAGGTCAAGGGGTGCGGTGACAACTGCAATTA 28736
1357 atcggaagcgacgtcgaagtaacggtgcaaacgacgcttccaa 1416
28735 TTGGGGGAAGAACCTTACATTAACGAAAGGTGTAACCGCGGAGCACTGAAAAAC 28676
1417 ggcgacgtatagcttattgataagcagcagcagcagcagcagcagcagcagc 1476
28675 GGAAGCGGTACCGTGTGCTTACCAACGACGACGACGACGACGACGACGACG 28616
1477 agtgaagacggtacgttacttgaagtaacggtgcaaacgacgcttccaa 1356
28615 AGTTCCGTGACGACGACGACGACGACGACGACGACGACGACGACGACGACG 28556
1537 aacccgcaacactatcttgcgttcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 1596
28555 AATCCGGATTAACATTTTACGGGATACCGGGAGGTAAAGCTTAAATGATTAATGCC 28496
1597 ctctgttccacglatlcaaaataacgaatgaagggcgatgattgcnatcat 1650
28495 GTTACCTTACCGGACGCTGCGGATTAACGGGGCGGTGATTAACAAATTAAT 28442

RESULT 27

ABAB8894
ID ABA8894 standard; DNA: 4128 BP.

XX ABA8894;
XX

XX 11-FEB-2002 (first entry)

XX Escherichia coli polynucleotide SEQ ID NO 559.

QY 3592 gaccgcccgaacgcngttggacaagcngatccggnacacacaaactacgttccgaa 3651
 DB 20513 CCTTCACAGAGGACACACAGAGGAGCCACACAGAGAGGAGCCACAGAGAGCCAC 20454
 QY 3652 gatttcgagcgtctaccgccaacaaacgacctgcccgaatcgtatgcagaaaactc 3711
 DB 20453 AGCAGCAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 20394
 QY 3712 ggcagcggcgcggtcgatcctgttttcgacacacgagccggaacaaacttcgacgac 3771
 DB 20393 AGCAGCAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 20334
 QY 3772 ggcagcggcgcggtcgatcctgttttcgacacacgagccggaacaaacttcgacgac 3831
 DB 20333 AGCAGCAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 20274
 QY 3832 aggttcgacatcgacatagcagcgggcggttttagcagcgagcagcagcagcagcagc 3891
 DB 20273 AGCAGCAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 20214
 QY 3892 atcggagggcaaatccgagcgcgcggtg 3918
 DB 20213 AGCAGCAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 20187

RESULT 34
 AAV19941/C
 ID AAV19941 standard; DNA; 137507 BP.

AAV19941:

03-AUG-1998 (first entry)

03-AUG-1998 (first entry)

KSHV Long unique coding region and terminal repeat.
 KSHV: HHV8; human herpes virus 8; macrophage inflammatory protein II;
 interleukin-6; IL-6; interferon regulatory factor; rheumatoid arthritis;
 complement-binding protein; glycoprotein; capsid protein IV; infection;
 immediate early protein; Kaposi's sarcoma; protective vaccine; lymphoma;
 lymphoproliferative disease; leukemia; splenomegaly; mycosis fungoides;
 HIV immune status; anti-inflammatory agent; therapy; ds.

OS Kaposi's sarcoma-associated herpes virus.
 FH Key Location/Qualifiers
 FT 1142..2794
 FT CDS
 FT /tag= a
 FT /product= complement-binding protein
 FT 8699..11236
 FT /tag= b
 FT /product= glycoprotein B
 FT complement (17261..17875)
 FT /tag= c
 FT /product= interleukin 6
 FT complement (21548..21832)
 FT /tag= d
 FT /product= macrophage inflammatory protein II
 FT complement (27137..27424)
 FT /tag= e
 FT /product= interferon regulatory factor 1
 FT 28661..29741
 FT /tag= f
 FT /product= protein T1.1
 FT complement (58976..60175)
 FT /tag= g
 FT /product= glycoprotein M
 FT complement (69412..69915)
 FT /tag= h
 FT /product= glycoprotein L
 FT complement (88410..88910)
 FT /tag= i
 FT /product= interferon regulatory factor 2

FT CDS 89600..90541
 FT /tag= j
 FT /product= interferon regulatory factor 3
 FT 90173..90643
 FT /tag= k
 FT /product= glycoprotein X
 FT complement (93636..94127)
 FT /tag= l
 FT /product= interferon regulatory factor 4
 FT complement (111931..112443)
 FT /tag= m
 FT /product= capsid protein IV
 FT complement (123808..127296)
 FT /tag= n
 FT /product= immediate early protein
 FT MO9804576-A1.
 FT 05-FEB-1998.
 FT 22-JUL-1997; 97WO-US13346.
 FT 29-NOV-1996; 96US-0757669.
 FT 25-JUL-1996; 96US-0686243.
 FT 25-JUL-1996; 96US-0686349.
 FT 25-JUL-1996; 96US-0686350.
 FT 25-JUL-1996; 96US-0687253.
 FT 25-JUL-1996; 96US-0688814.
 FT 05-SEP-1996; 96US-0708678.
 FT 10-OCT-1996; 96US-0728323.
 FT 13-NOV-1996; 96US-0747887.
 FT 13-NOV-1996; 96US-0748640.
 PA (UYCO) UNIV COLUMBIA NEW YORK.
 XX Bohenzky RA, Chang Y, Edelman IS, Moore PS, Russo JJ;
 PI WPI; 1998-130615/12.
 XX New nucleic acid encoding Kaposi's sarcoma associated herpes virus
 PT proteins - useful for, e.g. detecting levels of HHV8 in, and
 PT preparation of vaccines for treatment of, HIV patients
 XX
 XX Example 2; Page 135-203; 230pp; English.
 XX This sequence represents the long unique region and terminal repeat of
 CC the Kaposi's sarcoma associated herpes virus (KSHV). KSHV is also known
 CC as human herpes virus 8 (HHV8). This sequence contains the DNAs of the
 CC invention which encode KSHV polypeptides selected from: (a) viral
 CC macrophage inflammatory protein (MIP) II; (b) viral interleukin-6 (IL-6);
 CC (c) viral IRF 1; (d) complement-binding protein; glycoproteins B, M or L;
 CC (d) capsid protein IV encoded by ORF55; and (e) immediate early protein
 CC encoded by ORF73. Labelled probes for the nucleic acid, proteins encoded
 CC by it, and antibodies (Ab) specific for the proteins are useful for
 CC detecting HHV8, specifically for diagnosis of Kaposi's sarcoma, in body
 CC fluids or tissue samples. HHV8 infections can be treated with antisense
 CC or triplex forming molecules or agents that bind specifically to the
 CC protein. Ab may be used for prophylaxis or treatment of HHV8 infection,
 CC while the protein can be used in protective vaccines. Ab may also be used
 CC to differentiate between lymphomas, and HHV8 may be implicated in many
 CC other lymphoproliferative diseases such as lymphomas, leukemia,
 CC splenomegaly and mycosis fungoides. Cells and animals containing the
 CC nucleic acid are useful for drug screening. HHV8-derived redutase gene
 CC can be inhibited with methotrexate. These can also be used to determine
 CC the immune status of a patient infected with HIV. HHV8 derived protein
 CC viral MIP III may be used as an anti-inflammatory agent for,
 CC e.g. treating rheumatoid arthritis. This sequence is stated as containing
 CC 81 open reading frames.
 CC
 CC Sequence 137507 BP; 32579 A; 37795 C; 35758 G; 31375 T; 0 other;

CC formulated into vaccines and/or pharmaceutical compositions for
CC immunising against M. tuberculosis infection or may be used for the
CC diagnosis of tuberculosis.

XX Sequence 400 BP; 74 A; 151 C; 162 G; 13 T; 0 other;

Query Match 1.0%; Score 42.2; DB 19; Length 400;
Best Local Similarity 45.8%; Pred. No. 0.17;
Matches 140; Conservative 0; Mismatches 166; Indels 0; Gaps 0;

QY 3753 cgaacanccttcagacgagcgtcggcaactcggcagcgcttccacggcgctttt 3812
DB 92 cggcaacgcccggcgccgacccagcttcacccaaggcgccgaacgcccgcgca 151
QY 3813 cgggcaatacggcagcgttcgacatcgcatcgaacggcgcggttttagcg 3872
DB 152 cggcggtgagcgggggtcggcgcaacggcggaacggcggaacggcggaacac 211
QY 3873 cggcattcttcagacgagcgttcggaacatccgcgcgcgctgtcattacggcat 3932
DB 212 caccacgcgcgcgcgcgcgcgcacacagcgcgagcgcgggcgcgggcgcggaac 271
QY 3933 tcaggaacgatacgcgcgcggttcggcgagtcggcagtcgaacggcagcgcaac 3992
DB 272 cggcggaacgc 331
QY 3993 ggcgtatttcgtccaaagcgagcgttaccgctacggaacgctcaatcgccaccccg 4052
DB 332 cggcggaacgc 391
QY 4053 tcttgc 4058
DB 392 tgggtgc 397

RESULT 43

AAV44436
ID AAV44436 standard; DNA; 400 BP.

XX AAV44436;

DT 09-NOV-1998 (first entry)

DE Mycobacterium tuberculosis antigen XP22 5' DNA.

KM Tuberculosis; infection; diagnosis; antigen; XP22; ss.

OS Mycobacterium tuberculosis strain Erdman.

XX WO9816645-A2.

PD 23-APR-1998.

PF 07-OCT-1997; 97WO-US18214.

PR 13-MAR-1997; 97US-0818111.

PR 11-OCT-1996; 96US-0729622.

PA (CORI-) CORIXA CORP.

PI Campos-Neto A, Dillon DC, Houghton R, Lodes MJ;
PI Reed SG, Skelky YAW, Twardzik DR, Vedvick TS;

DR WPI; 1998-251292/22.

PT New isolated Mycobacterium tuberculosis polyepitides and DNA - used
PT to develop products for the detection of M. tuberculosis infection
PT and diagnosis of tuberculosis

PS Claim 4; Page 185-186; 250pp; English.

CC This is the 5' region of DNA coding for an antigenic portion of

CC Mycobacterium tuberculosis antigen XP22; 3' DNA is provided in
CC AAV44437. XP22 DNA was isolated from a M. tuberculosis strain Erdman
CC genomic DNA expression library using sera from patients having
CC extrapulmonary tuberculosis. It bears no similarity to known
CC sequences. The invention relates to methods and compositions for
CC diagnosing tuberculosis. It provides polypeptides (see
CC AAW64291-W64379) comprising an antigenic portion of a M.
CC tuberculosis antigen, or an immunogenic portion of a M.
CC tuberculosis antigen, as well as DNA sequences encoding such
CC polypeptides, recombinant expression vectors and transformed or
CC transfect host cells. Also claimed are methods and diagnostic
CC kits for detecting M. tuberculosis infection in a patient using
CC these polypeptides, antibodies or oligonucleotide probes and
CC primers.

XX Sequence 400 BP; 74 A; 151 C; 162 G; 13 T; 0 other;

Query Match 1.0%; Score 42.2; DB 19; Length 400;
Best Local Similarity 45.8%; Pred. No. 0.17;
Matches 140; Conservative 0; Mismatches 166; Indels 0; Gaps 0;

QY 3753 cgaacanccttcagacgagcgttcggaacatccgcgcgcgctgtcattacggcat 3812
DB 92 cggcaacgcccggcgccgacccagcttcacccaaggcgccgaacgcccgcgca 151
QY 3813 cgggcaatacggcagcgttcgacatcgcatcgaacggcgcggttttagcg 3872
DB 152 cggcggtgagcgggggtcggcgcaacggcggaacggcggaacggcggaacac 211
QY 3873 cggcattcttcagacgagcgttcggaacatccgcgcgcgctgtcattacggcat 3932
DB 212 caccacgcgcgcgcgcgcgcgcacacagcgcgagcgcgggcgcgcggaac 271
QY 3933 tcaggaacgatacgcgcgcggttcggcgagtcggcagtcgaacggcagcgcaac 3992
DB 272 cggcggaacgc 331
QY 3993 ggcgtatttcgtccaaagcgagcgttaccgctacggaacgctcaatcgccaccccg 4052
DB 332 cggcggaacgc 391
QY 4053 tcttgc 4058
DB 392 tgggtgc 397

RESULT 44

AAZ19346
ID AAZ19346 standard; DNA; 400 BP.

XX AAZ19346;

DT 05-NOV-1999 (first entry)

DE M. tuberculosis antigen 5' XP22 DNA sequence.

KM Mycobacterium tuberculosis; M. tuberculosis; antigen; immunogen;

KM Immunotherapy; diagnosis; immunisation; vaccine; infection;

KM Immune response; skin test; ss.

OS Mycobacterium tuberculosis.

XX WO9942076-A2.

PD 26-AUG-1999.

PF 17-FEB-1999; 99WO-US03268.

PR 05-MAY-1998; 98US-0072967.

PR 18-FEB-1998; 98US-0025197.

PA (CORI-) CORIXA CORP.

